CLAIMS

What is claimed is:

1. A method of producing a representation of a streaming media data at a caching proxy server, the method comprising:

transmitting a request for streaming media data to be delivered to the caching proxy server;

transmitting a request for data associated with the streaming media data, the request including an identifier which represents one of several possible types of data associated with the streaming media data;

receiving the streaming media data and storing the streaming media data on a storage device which is capable of being controlled by the caching proxy server; and

receiving the data associated with the streaming media data in a body of a packet.

2. The method of claim 1, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

3. The method of claim 2, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

4. The method of claim 2, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

5. The method of claim 2, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.

6. The method of claim 1, further comprising placing streaming media data in body of an RTP data packet.

7. A method for operating a caching proxy server comprising:

sending a request for streaming media data to a server, the request including a request for data associated with the streaming media data, the request including an identifier which represents one of several possible types of data associated with the streaming media data;

receiving a response from the server indicating support for the requested streaming media data;

informing the server to send the supported data associated with the streaming media data;

receiving the streaming media data from the server in a body of a packet;

receiving a request from the client to send streaming media data; and

sending the requested streaming media data to the client.

8. The method of claim 7, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

9. The method of claim 8, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

10. The method of claim 8, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

11. The method of claim 8, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.

12. The method of claim 7, wherein the sending the streaming media data to the client further includes appending header fields of a data packet header before sending streaming media data to the client.

13. The method of claim 12, wherein, appending comprising stripping of name and ID of the data packet header.

14. A method of negotiating for various types of streaming media data by the server comprising:

receiving a request for one or more types of streaming media data from a caching proxy server or a client, the request including a request for data associated with the streaming media data, the request including an identifier which represents one of several possible types of data associated with the streaming media data;

determining if requested types of streaming media data are supported by the server; and

responding to the request with a response to indicate the capability of the server to support the request, wherein the response is in a body of a packet.

15. The method of claim 14, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes

a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

16. The method of claim 15, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

17. The method of claim 15, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

18. The method of claim 15, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.

19. A method of negotiating for various types of streaming media data by the caching proxy server comprising:

sending a request for one or more types of related or unrelated streaming media data to a server, the request including a request for data associated with the streaming media data, the request including an identifier which represents one of several possible types of data associated with the streaming media data;

receiving a response in a body of a packet to each requested type of streaming media data; and

deciding whether to proceed or terminate negotiation process associated with streaming media data.

20. The method of claim 19, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

21. The method of claim 20, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

22. The method of claim 20, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

23. The method of claim 20, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.

24. A method of frame thinning by caching proxy server comprising:

receiving a message from a client, the message indicating a need to thin streaming media data being sent to the client;

evaluating priority of streaming media data; and

sending only selected streaming media data in a body of a packet.

25. The method of claim 24, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

26. The method of claim 25, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

27. The method of claim 25, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

28. The method of claim 25, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.

29. A method of using transmit time of RTP packet transmissions at a caching proxy server the method comprising:

requesting data corresponding to transmit time for streaming media data from a server;

receiving the streaming media data corresponding to transmit time information from the server in a body of a packet;

storing the received information; and

transmitting from the caching proxy server to a client the streaming media data at times specified by the transmit time.

30. The method of claim 29, wherein the data associated with the streaming media data comprises a RTP Meta-Information payload format which includes a field header to identify the streaming media data associated with the request, and a field body to include the streaming media data.

31. The method of claim 30, wherein the field header is a standard field header including a first bit identifying type of the field header, a field name identifying type of the streaming media data, and a field length.

32. The method of claim 30, wherein the field header is a compressed field header including a header type identifier, a field ID, and a field length.

33. The method of claim 30, wherein the field header is a combination field header which includes a standard field header coupled to a compressed field header.